CLAIMS

What is claimed is:

5   1   An automated metadata discovery, assignment, and submission system,

comprising:

a photosharing service coupled to a network through a server, the server

storing metadata fields; and

at least one client computer capable of communicating with the server over

10 the network, the client computer storing a plurality digital files and an automation

application, wherein, when executed the automation application is functional for;

establishing communication with the photosharing service,

downloading the metadata fields,

automatically analyzing the content of a first file and assigning one or

15 metadata values to the downloaded metadata fields based on the analysis,

automatically discovering any pre-existing metadata values

associated with the file and using the metadata values to populate

corresponding downloaded metadata fields,

displaying both the pre-existing and automatically assigned metadata

20 values to the user for viewing and editing,

recording the metadata values assigned to the file for use with a next

image, and

uploading the file and the metadata values to the photosharing service for storage.

5   2   The system of claim 1 wherein the digital file comprises a digital image.

3   The system of claim 1 wherein the automation application allows the user to perform edits on the image prior to uploading.

10   4   The system of claim 1 wherein the automation application includes a graphical user interface (GUI) for displaying the metadata values to the user and for displaying forms by which the user may enter and edit metadata values.

5   The system of claim 4 wherein the GUI displays the metadata values in a
15   manner that visually distinguishes various categories of metadata for the user.

6   The system of claim 1 wherein the automation application includes a plug-in interface.

20   7   The system of claim 6 wherein the automation application provides built-in support for a plurality of image file formats, and wherein file type plug-ins may be added for interacting with the automation application through the plug-in interface to enable the automation application to support new file formats.

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8   The system of claim 7 wherein the automation application uses image recognition plug-ins to analyze the image.

5   9   The system of claim 1 wherein the automation application further includes a history repository for recording the metadata values assigned to the image.

10 A method for automatically discovering metadata for digital image files and for submitting the metadata and image files to a network-based photosharing service

10   by an application running on a client computer, the method comprising steps of:

(a)   downloading to the client computer from the photosharing service a list of metadata fields to be populated for the image files;

(b)   selecting a first image file and parsing the image file to extract metadata values therein, and using the metadata values to populate a

15   portion of the downloaded metadata fields;

(c)   providing the application with a plug-in interface by which multiple image recognition applications may be added to the application, and using at least one of the image recognition applications to automatically analyze the image file, associate the image file with a

20   particular category based on the analysis, and to populate at least one of the downloaded metadata fields with a value indicating the assigned category;

(d)   displaying on the client computer a list of the downloaded metadata fields and the corresponding values that were automatically populated in steps (b) and (c);

(e)   allowing a user to fill-in unpopulated metadata fields and to edit the automatically populated metadata fields;

(f)   recording the metadata values assigned to image file;

(g)   retrieving a next image file and using the values assigned to the previous image file to populate a portion of the metadata fields for the current image;

(h)   repeating steps (b)-(g) or each image file to be uploaded to the photosharing service; and

(i)   uploading the image files and corresponding metadata to the photosharing service.

11 The method of claim 10 wherein step (c) further includes the step of: allowing image type plug-ins to interface with the application through the plug-in interface to increase a number of image file types supported by the application.

12 The method of claim 10 further including the step of: allowing the user to edit the image depicted in image file from the application prior to uploading to the photosharing service.

13 The method of claim 12 further including the step of: providing rotation, color correction, and cropping as image editing functions.

14 The method of claim 10 wherein step (d) further includes the step of:

(i)   when displaying the downloaded metadata fields indicating to the user which ones of the metadata fields are automatically detected from the image file, and which ones of the metadata fields are to be manually entered by the user.

15 The method of claim 14 wherein step (d) further includes the step of: displaying different categories of metadata differently as a visual aid to the user.

16 The method of claim 15 wherein step (d) further includes the step of:

(ii)   indicating to the user which ones of the metadata fields are optional fields and which are required fields.

17 The method of claim 10 wherein step (f) further includes the step of:

(i)   recording the metadata values assigned to image file in a history repository.

18 The method of claim 17 wherein step (f) further includes the step of:

(ii)   providing the history repository as a plug-in.

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19 The method of claim 10 wherein step (i) further includes the step of:

(i)   placing the images and metadata in a queue for uploading that

is processed by the application in a background process.

20 A computer-readable medium containing program instructions for automatically

discovering metadata for digital image files and for submitting the metadata and

image files to a network-based photosharing service by an application running on a

client computer, the program instructions for:

(a)   downloading to the client computer from the photosharing service a

list of metadata fields to be populated for the image files;

(b)   selecting a first image file and parsing the image file to extract

metadata values therein, and using the metadata values to populate a

portion of the downloaded metadata fields;

(c)   providing the application with a plug-in interface by which multiple

image recognition applications may be added to the application, and

using at least one of the image recognition applications to

automatically analyze the image file, associate the image file with a

particular category based on the analysis, and to populate at least one

of the downloaded metadata fields with a value indicating the

assigned category;

(d)   displaying on the client computer a list of the downloaded metadata

fields and the corresponding values that were automatically populated

in instructions (b) and (c);

(e)   allowing a user to fill-in unpopulated metadata fields and to edit the automatically populated metadata fields;

(f)   recording the metadata values assigned to image file;

(g)   retrieving a next image file and using the values assigned to the previous image file to populate a portion of the metadata fields for the current image;

(h)   repeating instructions (b)-(g) or each image file to be uploaded to the photosharing service; and

(i)   uploading the image files and corresponding metadata to the photosharing service.

21 The computer-readable medium of claim 20 wherein instruction (c) further includes the instruction of: allowing image type plug-ins to interface with the application through the plug-in interface to increase a number of image file types supported by the application.

22 The computer-readable medium of claim 20 further including the instruction of: allowing the user to edit the image depicted in image file from the application prior to uploading to the photosharing service.

23 The computer-readable medium of claim 22 further including the instruction of: providing rotation, color correction, and cropping as image editing functions.

24 The computer-readable medium of claim 20 wherein instruction (d) further includes the instruction of:

      (i)   when displaying the downloaded metadata fields indicating to the user which ones of the metadata fields are automatically detected from the image file, and which ones of the metadata fields are to be manually entered by the user.

25 The computer-readable medium of claim 24 wherein instruction (d) further includes the instruction of: displaying different categories of metadata differently as a visual aid to the user.

26 The computer-readable medium of claim 25 wherein instruction (d) further includes the instruction of:

      (ii)   indicating to the user which ones of the metadata fields are optional fields and which are required fields.

27 The computer-readable medium of claim 20 wherein instruction (f) further includes the instruction of:

      (i)   recording the metadata values assigned to image file in a history repository.

28 The computer-readable medium of claim 27 wherein instruction (f) further includes the instruction of:

(ii)   providing the history repository as a plug-in.

29 The computer-readable medium of claim 20 wherein instruction (i) further

includes the instruction of:

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(i)   placing the images and metadata in a queue for uploading that

is processed by the application in a background process.